

### **REMARKS**

Claims 1-6, 8, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Andry et al. (U.S. Patent No. 6,724,449) in view of Suzuki et al. (U.S. Pub. No. 2002/0080320). Applicants traverse the rejection because the cited references, taken alone or in combination, fail to disclose or suggest an alignment direction controlling section or sections in direct contact with the liquid crystal layer.

Andry discloses that a polymer wall or ridge 401 is located on a top plate electrode near the center of each pixel, as shown in Fig. 4. A dry vertical alignment film that covers both the top and bottom substrate, including the ridge 401, is used as an alignment layer (col. 6, lns. 62-67). Accordingly, Andry teaches that the ridge is deposited onto an ITO electrode, and a dry vertical alignment layer is coated over the substrate and ridge. Once the ridge and vertical alignment layer have been deposited on the substrate, a regular cell fabrication process is performed to assemble two substrates to forming an empty cell, and the empty cell is then filled with a liquid crystal material (see col. 7, lns. 17-20; col. 5, lns. 7-13). Thus, the liquid crystal directly contacts the vertical alignment layer of Andry, and not the polymer wall.

Suzuki is cited as disclosing first and second polarizers and first and second  $\frac{1}{4}$  wavelength plates. As shown in Fig. 15A of Suzuki, polarizing plates 720 are disposed on outer surfaces of substrates 701, 707 used to form a liquid crystal display. Further, quarter wave plates 721 are disposed between the polarizing plates 720 and the substrates. However,

Suzuki is silent regarding any alignment direction controlling section formed on one or both surfaces of the substrates that contact the liquid crystal layer.

In contrast, claim 1 of the present application has been amended to clarify that an alignment direction controlling section or sections formed on the substrate of a liquid crystal display is disposed such that the section or sections directly contacts the liquid crystal material. That is, as shown in Figs 12A and 12B for example, an alignment direction controlling sections 27 is formed on an electrode 26 so as to be in direct contact with a liquid crystal layer 23. Because Andry and Suzuki, taken alone or in combination, fail to disclose or suggest such a feature, withdrawal of the rejection of independent claim 1 and its associated dependent claims is respectfully requested.


For all of the foregoing reasons, Applicant submits that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

If a Petition under 37 C.F.R. §1.136(a) for an extension of time for response is required to make the attached response timely, it is hereby petitioned under 37 C.F.R. §1.136(a) for an extension of time for response in the above-identified application for the period required to make the attached response timely.

The Commissioner is hereby authorized to charge any additional fees which may be required to this Application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 07-2069.

Respectfully submitted,

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